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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,832	11/14/2003	David D. Szarka	HES 2003-IP-010155U1	3202
29920	7590	05/19/2005		
JOHN W. WUSTENBERG P.O. BOX 1431 DUNCAN, OK 73536			EXAMINER NEUDER, WILLIAM P	
			ART UNIT 3672	PAPER NUMBER
DATE MAILED: 05/19/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/714,832	SZARKA, DAVID D.	
	<b>Examiner</b>	<b>Art Unit</b>	
	William P Neuder	3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-21, 26, 27, 29-31, 35-38, 41, 42, 44-57, 59 and 60 is/are rejected.
- 7) ☒ Claim(s) 6, 7, 22-25, 28, 32-34, 39, 40, 43, 58 and 61-64 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>11/14/03, 3/28/05</u> .   | 6) <input type="checkbox"/> Other: ____                                     |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5,8-11,13-19,26,27,29-31,35-37,41,42,44-53,55-57,59 and 60 are rejected under 35 U.S.C. 102(b) as being anticipated by LaFleur 5311940.

LaFleur discloses a dart 152 for activating a plug located in a well. Plug 152 engages a bottom plug and is received into the plug, at least nose section 160. Plug or dart 152 has a mandrel 156 and a foam body 158 attached to the mandrel. As to claim 2, hydraulic pressure is applied behind dart 152 to move the dart down the well. As to claim 3, once dart 152 lands in the lower plug, pressure behind the dart activates or drives the plug and dart downward. As to claims 4,5,49 and 50, mandrel 156 is made from a drillable material such as a thermoplastic. As to claims 8 and 36, a nosepiece 160 is provided which sealingly engages the lower plug. As to claims 9,10,41 and 42, the nosepiece is also made from a thermoplastic drillable material. As to claims 11 and 37, the nosepiece is threadably attached to the mandrel. As to claims 13-16 and 44-47, foam body 158 is a low density open cell elastomer made from polyurethane. As to claims 18,19,51 and 52, the body 158 is substantially cylindrical and the outer diameter is constant. As to claims 17 and 48, the nosepiece 160 is tapered. As to claims 27 and 57, nosepiece 160 is in the form of a seal ring. As to claims 29,30,59 and 60, the pipe

string has a diameter that varies. Dart 160 is formed to be flexible so that it engages the string at all times regardless of the pipe diameter. As to claims 31 and 52, the outer diameter of the nosepiece is smaller than the outer diameter of the foam body. As to claim 55, foam body 158 is seen to be in the form of a rib.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 12,20,21,26,38,54 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over LaFleur.

As to claims 12 and 38, while the nosepiece 160 is threadably attached to the mandrel, it would have been considered an obvious choice in design to form the nosepiece integral with the mandrel since forming multi-pieced structures as single structures is not normally seen to define patentability. As to claims 20 and 54, while the outer body 158 is not varied, it would have been considered an obvious design choice

to vary the outer diameter since sometimes it is advantageous to taper well equipment to avoid the structure becoming stuck. As to claim 21, the body 158 is considered to be in the form of a rib. As to claims 26 and 56, while LaFleur only coats the foam body, it would have been considered an obvious design choice to also coat the nose piece if one so desired to help prevent degradation of the nose piece.


***Allowable Subject Matter***

Claims 6, 7, 22-25, 28, 32-34, 39, 40, 43, 58 and 61-64 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P Neuder whose telephone number is 571-272-7032. The examiner can normally be reached on Tuesday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
William P Neuder  
Primary Examiner  
Art Unit 3672

W.P.N.